

**Analyzing the impact on consumer satisfaction, behavior and attitudes by using eco-friendly practices and products in Surfers Paradise/Gold Coast city hotels, Australia.**

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<b>Opinnäytetyön nimi</b> Analyzing the impact on consumer satisfaction, behavior and attitudes by using eco-friendly practices and products in Surfers Paradise, Gold Coast city hotels, Australia.	<b>Sivu- ja liitesivumäärä</b> 44 + 7
<b>Ohjaaja tai ohjaajat</b> Minna-Maari Harmaala	
<p>Tutkimuksessani selvitetään asiakastyytyväisyyttä sekä asiakkaiden suhtautumista Australian, Gold Coastissa sijaitsevien hotellien ympäristöystävällisiin käytäntöihin. Opinnäytetyössäni tutkitaan yksilön tyytyväisyyttä, käyttäytymistä, asenteita, osaamista ja valmiutta tukemaan ympäristöystävällisiä käytäntöjä.</p> <p>Hotelli-ala myötävaikuttaa ympäristön haasteisiin. Kuluttajat ovat paremmin tietoisia hotellien ympäristövaikutuksista ja uusi markkinasegmentti on jo muodostunut ympäristöystävällisistä asiakkaista. Tämän lisäksi yhä enemmän valtion viranomaiset kiinnostuvat hotellien ympäristöystävällisten käytäntöjen omaksumisessa, joka edistää vauhdikkaan kysynnän kasvun hotellien vihreän politiikan käyttöönottamisessa.</p> <p>Hotellit, jotka väittävät olevansa ympäristöystävällisiä aloittivat täytäntöönpanotoimenpiteitä vähentääkseen veden, sähkön ja muiden luonnonvarojen hävikkiä. Hotellit panostavat asiakkaiden tietoisuuden lisäämiseen sekä selittämiseen miksi ympäristöystävällisten tapojen omaksuminen on niin globaalisesti tärkeä. Tässä projektissa hotellit keskittyvät todistaakseen tärkeyden kierrätyksessä sekä muun hävikin vähentämisessä.</p> <p>Asiakkaat, jotka maksavat enemmän korkealaatuisista hotellipalveluista odottavat viiden tähden hemmottelua. Tavoittaakseen luksusta, hotellit käyttävät vettä, energiaa ja muita luonnon resursseja ylläpitääkseen korkeaa laatua ja palveluhenkisyttä. Ympäristöystävälliset asiakkaat päinvastoin ymmärtävät miten hotellit voisivat järkevästi hyödyntää erilaisia luonnonvaroja ja tukea niitä parhaiten toiminnassaan. Tutkimuksessani kiinnitetään huomiota myös mahdollisiin asiakkaisiin, jotka vapaaehtoisesti haluaisivat maksaa ylimääräistä hotellien ympäristöystävällisistä käytännöistä.</p> <p>Aiemmassa tutkimuksessa, hotellien ympäristöystävällisyyteen liittyen, väitetään yksilön tarvitsevan tiettyjä ominaispiirteitä omakseen ympäristöystävällisiä toimintatapoja. Kyseiset piirteet ovat yksilön käyttäytyminen, asenteet ja osaaminen. Tässä tutkimuksessa keskitytään hotellien ympäristöystävällisten toimintatapoihin sekä niiden vaikutuksiin yllä mainittuihin piirteisiin eli yksilön käyttäytymiseen, asenteisiin sekä osaamiseen.</p> <p>Kerätäkseen dataa ja tietoa kyselylomakkeet oli jaettu sekä yleisölle että opiskelijoille Bond yliopiston kampuksella Gold Coast, Australiassa. Sata viisikymmentä kolme käytökelpoista kyselylomaketta oli vastaanotettu. Kerätyt tiedot olivat myöhemmin tilastollisesti analysoitu.</p>	

19.4.2012

**Liiketalouden koulutusohjelma**

Analyysin tulokset osoittavat, että vastaajat ovat valmiita tukemaan tärkeitä ympäristöystävällisiä toimenpiteitä, kun heidän ei tarvitse maksaa niistä ylimääräistä eikä ne vaikuta heihin henkilökohtaisesti. Analyysi myös osoittaa, ettei sukupuolella ja tulotasolla ole mitään merkitystä yksilön suhtautumisessa hotellien ympäristöystävällisiä käytäntöjä kohtaan.

**Asiasanat**

Ympäristöystävällisyys, asiakastyytyväisyys, palvelun laatu, ekotehokkuus, kestävä kehitys.

Bachelor of Business Administration, Helsinki

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<p>This study explores customer attitude towards environmentally friendly practices by hotels and the impact on customer satisfaction. The research investigates individual's behavior, attitude, knowledge, satisfaction and willingness to support eco-friendly practices.</p> <p>The hotel industry contributes to the global environmental challenges. Consumers are becoming more aware of the environmental impacts by the hotels and a new market segment of eco-friendly customers has developed. In addition there is increasing demand from the government and other legal authorities for the adoption of environmentally friendly practices in the hotels.</p> <p>Hotels which claim to be environmentally friendly started implementing measures to reduce wastage of water, electricity and other natural resources. Hotels initiated informing customers the need for being environmentally friendly and the importance of reducing, reusing and recycling.</p> <p>The guests who pay for high quality hotel services expect to be pampered with luxurious life style. The hotels use water, energy and other natural sources in abundance to provide quality in their service to the customers. Environmentally responsible customers understand the value of utilising these natural resources sensibly and would support any activity intended to preserve them. This research also investigates the level of support by the customers, by willing to pay for environmentally friendly practices by the hotels.</p> <p>Previous research related to environmentally friendly practices indicate that certain characteristic features must be present in an individual to adopt environmentally friendly activities. They are individual behavior, attitude and knowledge. Hence this research evaluated environmentally friendly activities by hotels, its effects on customer satisfaction and also customer attitude towards these practices based on the above mentioned characteristics.</p>	

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Questionnaires were distributed to the public and also to the students of Bond University campus in Gold Coast, Australia in order to collect data. One hundred and fifty three usable questionnaires were received. The data collected were subjected to statistical analysis.

The analysis of the results indicate that the respondents are willing to support environmentally friendly practices provided, when they don't have to pay for it and it does not affect them personally. The analysis also indicates that gender and level of income has no significance towards an individual's attitude towards environmentally friendly practices by the hotels.

**Key words**

Eco-friendly practices, customer satisfaction, environmental impacts, service quality, environmental responsibility, green marketing.

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# 1 Introduction

This chapter outlines the background for the study; justification to the research; research problem; research structure; the methodology used and concludes with a summary.

## 1.1 Background to the Research

The purpose of this study is to explore the attitude of the customers towards environmentally friendly practices by the hotels in Gold Coast, Australia and its effects on customer satisfaction. The study also investigates the willingness of the customers to pay surcharge for environmentally friendly practices. Eco-friendly hotel, environmentally friendly hotel and green hotel are the terms used to refer hotels that have made a commitment to various environmentally sound practices such as saving water, energy and reducing solid waste. (Manaktola & Jauhari 2007, 364-377).

Research shows that an individual's commitment towards environmentally friendly activities depends on behavior, attitude, knowledge, willingness to act (Stone, Barnes & Montgomery 1995, 595-612). All these elements were measured using the 3R's (reduce, reuse and recycle) employed by hotels globally to become environmentally friendly.

Hotels satisfy their guests with large amounts of resource consumption that is correlated with good quality service (Kirk 1996, 3-8). However, the environmental movement is slowly changing this notion. Many hotels around the world have been adopting environmentally friendly practices and operating in an environmentally sensitive manner (Tzschentke, Kirk & Lynch 2008, 126-133). It is widely accepted that hotels have the responsibility to preserve natural resources by using them judiciously and not polluting them (Tzschentke, Kirk & Lynch 2004, 116-124). These trends resulted in the development of a new segment of hotels, known as environmentally friendly hotels.

In the hotel industry the product being service, the quality of service is very important. Service quality is antecedent to customer satisfaction (Caruana 2002, 811-830). Perceived service quality is a result of individual encounter between the ser-

vice provider and customer, during which the customer evaluates quality and develops satisfaction or dissatisfaction (Bitner, Booms & Stanfield 1990, 71-84). Customer satisfaction is directly proportional to price (Anderson 1996, 265-274). Customer satisfaction is prior to repeat purchase behavior (Reichheld, 1996). Earlier research shows that it is less expensive to maintain a customer than to attract a new customer (Fornell 1992, 1-21).

As people are becoming more aware of the environmental problems caused by the hotel industry, they are looking for eco-friendly hotels (Schlegelmilch, Bohlen & Diamantopoulos 1996, 35-56). Becoming a green hotel could be the foundation for a great marketing strategy (Manaktola & Jauhari 2007, 364-377).

This issues lead to the identification of the research problem.

## **1.2 Research question**

What is the customer's attitude towards environmentally friendly practices by hotels and how it impact on their level of satisfaction?

The literature review shows that customer attitude towards environmentally friendly products have an impact on their decision to pay for such products.

## **1.3 Justification for the research**

Research on customer satisfaction and attitude towards environmentally friendly practices is important. Hotel industry is part of the tourism industry which is the largest industry of the world (WTTC 2004). Recent research shows that hotels around the globe are trying to become environmentally friendly (Tzschentke et al. 2008, 126-133). The hotels are trying to target a new market segment. Hence hotels are increasingly concentrating on green marketing strategy and the first step in marketing is providing customers what they want (Manaktola & Jauhari 2007, 364-377). Satisfaction of the customers with a product is very important to success of that business. Hence it is very important to understand the level of customer satisfaction in relation to environmentally friendly practices by the hotels. Customers from their satisfaction with a

product as a result of the direct comparison between their expectations and perceptions of that product (Oh 1999, 67-82.). Customers who are satisfied with a product repurchase the product more often (Reicheld 1996), and will also recommend it to others (Oliver & Swan 1989, 21-35). The cost of doing business with a customer, with whom there is good relationship, is much lower than canvassing a new customer (Fornell 1992, 1-21; Anderson, Fornell & Lehmann 1994, 53-66). Considering the relevance of customer satisfaction towards the success of a company, it is very important to study customer satisfaction towards environmentally friendly practices by hotels.

Hotels at times charge more for being environmentally friendly (Peattie 1999, 131-148). The reason for this practice results from of the initial setup costs or cost of installing new machinery for environmentally friendly practices (Peattie 1999, 131-148). Research shows that customers are willing to purchase a product if it delivers value-for-money (Rust & Oliver 1994, 1-19). Therefore it is necessary to discover if the customers are willing to pay more for environmentally friendly practices by hotels.

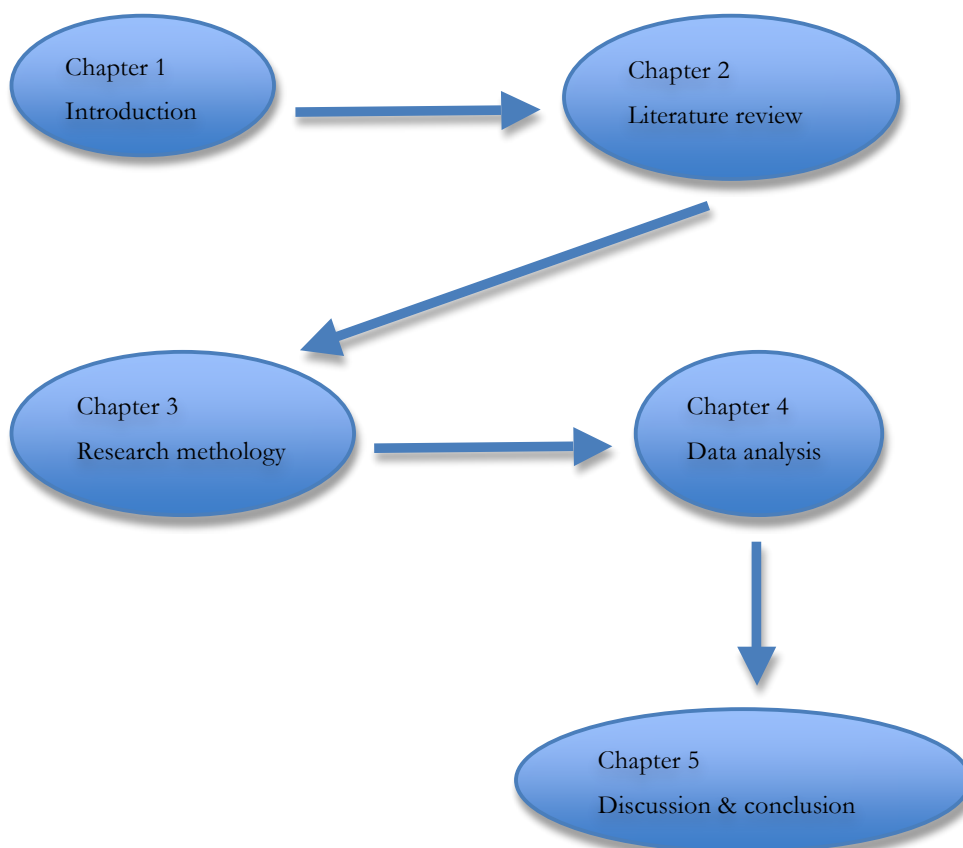
## **1.4 Research Approaches**

This section provides an overview of the research approaches. Detailed explanation of methodological procedures is provided in chapter three. Initial knowledge regarding environmentally friendly practices and the hotel industry was collected from literature reviews. Two focus groups were conducted and the data were transcribed and used in the preparation of the scales. A self administrated survey design based on the literature reviews was developed and was considered as an appropriate method for this research. A pilot test of the questionnaire was undertaken with the cooperation of bachelor business administration students. The reason for choosing students was because it represents homogeneity and also minimizes variance in terms of age, education and other limitations (Kacen & Lee 2002, 163-176.).

Scale reliability was tested using Cronbach's alpha. Data reduction technique was also used to reduce large number of interrelated variables to a smaller number of underlying factors. T-test was conducted to assess if the scores are from the same population. Finally the hypotheses were tested using Pearson's Correlation.

## 1.5 Structure of Thesis

This thesis consists of five chapters, each explaining different section of the research. Thesis should highlight discrete sections within a unified structure (Perry 1998, 63-85). Figure 1.1 represents a schematic view of the structure of thesis. The different chapters of the thesis are as following. Chapter two consists of literature review, on previous research related to major areas including environmentally friendly practices, customer satisfaction, purchase intention and characteristics for measuring individual's attitude towards eco-friendly practices. Three hypotheses were derived as a result of the literature reviews. Chapter three indicates the different methods used for collecting data. Chapter four indicates the results of the analysis of the data that was collected. The final chapter discusses the results of this research and are compared with previous research. The chapter concludes with directions for future research topic.



**Figure 1.1: Thesis Structure**

## **1.6 Summary**

This chapter outlines the foundations for the research. The chapter also briefs about the background of the study and the theoretical and practical significance of this research. Key aspects of the methodology and the out line of the thesis structure are also explained. A detailed description of the thesis is explained in the following chapter.

## **2 Literature review**

### **2.1 Introduction**

Environmentalism has been identified as one of the biggest business issues of the 1990's (Kirkpatrick 1990, 44-51). There has been a substantial increase in the environmental consciousness around the world (Schlegelmich et al. 1996, 35-56), with many considering this an immediate and urgent problem (Dembkowsky & Hammer-Loyd 1994, 32-41).

The hotel industry is a contributor to environmental damages (Kirk 1996, 3-8). The interactions between the hotel industry and the environment complex due to its nature of services (Gonzales & Leon 2001, 177-190). Hotel services contribute to global environmental problems such as climate change and changes in biodiversity (Walker 2000). In addition individual hotels contribute to local problems like exhaustion of water resources, soil-erosion and landscape degradation. Hotels also create environmental problems in the hotel itself such as health hazards and noise (Gonzales & Leon 2001). The hotel industry is adopting environmental policies for many reasons including consumer demand, government regulations, social responsibility and cost gains (Iwanowski & Rushmore 1994, 34-38; Foster, Sampson & Dunn 2000, 187-203). As people are becoming more aware of environmentally friendly practices green marketing is a new strategy by which the hotels promote themselves, by designing, pricing and distributing the services while minimizing the effects on the environment (Pride & Ferrell 1993).

This chapter presents a literature review of the growth and development of hotel industry; the impact of hotel industry on the environment; the reasons for adapting environmentally friendly practices by hotels; environmental responsibility; customer satisfaction; price; value; purchase intention and concludes with the hypotheses.

## **2.2 Hotel industry, growth and development**

Hotel industry is defined as "a set of lodging firms, including motels in competition and producing goods and services of like function and nature" (Go & Pine 1995) and is a sub sector of the tourism industry. The tourism industry is the one of the world's leading industries, which expects it to contribute almost US \$ 6 trillion to the global economy. (WTTC 2011).

Hotels are classified based on the competitive environment in which they operate i.e. international, national and local (Olsen 1996, 7-14). Each hotel is also classified based on the quality of services provided and on the type of customer they target (business and leisure) (Lewis, Chambers & Chako 1995, 83-91; Jones 2002). The hotel industry, in spite of having many subsections, competes at a broader level within a specific geographic area (Lewis et al. 1995, 83-91). The competition within a specific geographic area need not be between hotels of the same type, for example in a given area, a first class hotel may also compete with a luxury or mid range hotel depending on the range of hotels in that particular area (Lewis et al. 1995, 83-91). The hospitality industry also varies according to the legal, economic and financial structure of the country in which it operates (Jones 1999, 427-442). The legal policies and practices of different countries make the hotel industry more complex due to different legal requirements (Powers 1992). The operational characteristics of the hotel industry are high labour intensity, competitiveness; sensitivity to fluctuations in demand and capital intensiveness. (Go & Pine 1995).

The industry had significant growth after World War II as the companies capitalized on the growth and expansion trends in the developed nations like the USA and some countries of Europe (Weaver & Oh 1993, 16-21). This complex industry has

shown a substantial growth over the last thirty years, especially a twenty five percent growth in the number of bed rooms worldwide during a period from 1990 to 1998 (Go & Pine, 1995; Olsen 1996, 7-14). The development and growth of transportation played a significant role in the growth of hotel industry (Gee 1994). More recently the developments in the hotel industry are occurring in the less developed and developing countries (Olsen 1996, 7-14; Anon 2006).

The world hospitality industry is facing three trends and they are the development trend, informatisation and internationalization (Anon 2004).

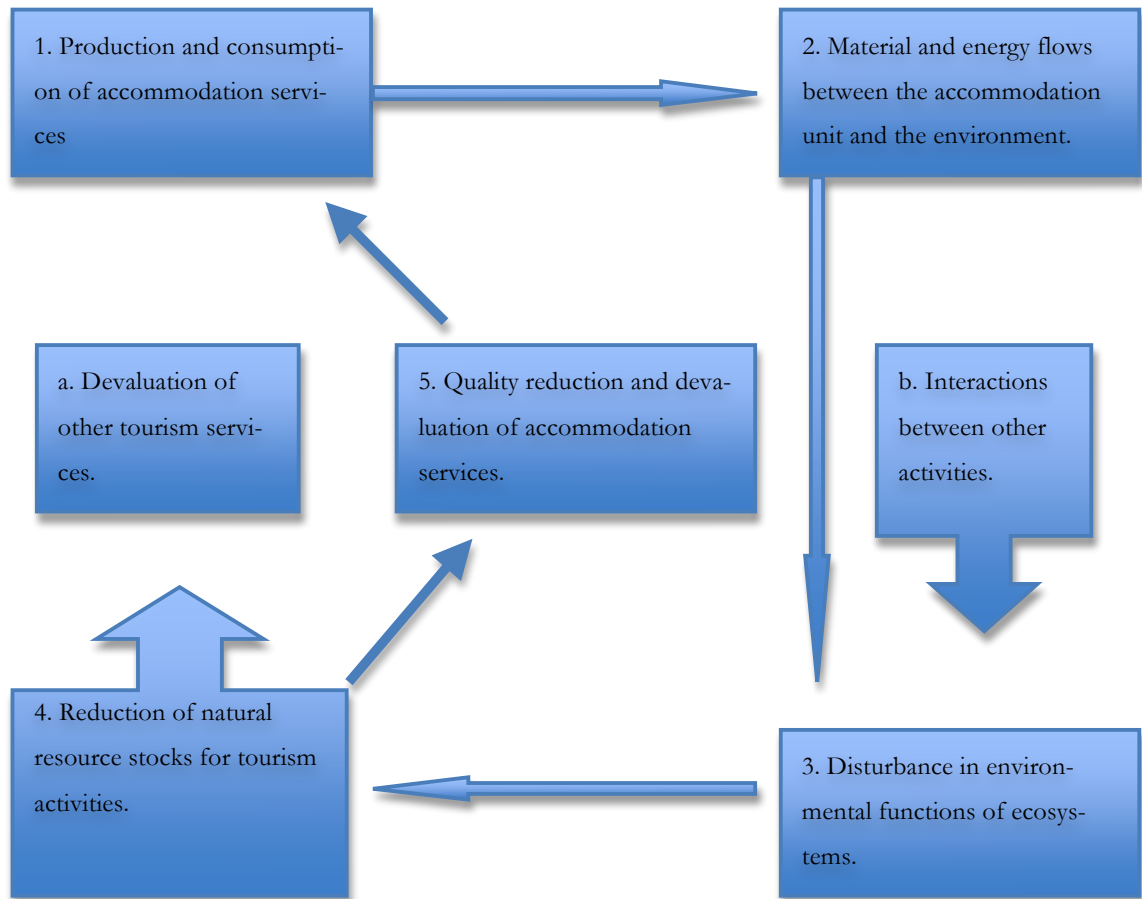
### **2.3 Environmental impacts by the hotel industry**

The success of tourism and hotel industry largely depends on the availability of a clean environment (Carter, Whiley & Knight 2004, 46-68). Many hotels are situated in areas of outstanding natural beauty, in historic cities and in areas with a delicate ecological balance and customers who seek hospitality services in those environments do so expecting luxurious facilities (Kirk 1996, 3-8). Ironically the supply of many of these facilities is detrimental to the environment in which they are located.

The environment is a recipient of negative impacts of tourism (Manaktola & Jauhari 2007, 364-377). The impacts on the environment by the hotel industry can be divided into two, one during construction of the property and the second during the operations (Gonzalez & Leon 2001, 177-190). The hotel industry, in the operational business cycle consumes large amount of recyclable and non recyclable natural resources to service the guests. The consumption of natural resources by the hotel in different locations creates burden on the supporting environment (Manaktola & Jauhari 2007, 364-377). This results in the emission of different types of solid, liquid and gaseous wastes from the hotel premises (Mander & Jongman 1998, 149-153; Webster 2000).

Figure 2.1 represents the interaction between the hotel services and the environment. Natural resources are consumed and residues created by the production and consumption of tourism services. These residues along with other economic acti-

vities affect the eco system. The final result is the alteration in the natural resources for the tourism, which results in the quality of the tourism product (hotel accommodation). The boxes one to five represent the direct impact and boxes "a" and "b" the indirect impact.



**Figure 2.1: Interaction between hotel services and the environment** (Gonzalez & Leon 2001, 177-190).

## 2.4 Greening of hospitality industry

Initially environmental pressure mainly focused on a wide range of those industries that cause direct pollution to the environment (Tzschenke, et al. 2004, 116-124 ; Kirk 1996, 3-8). Environmental consciousness has been growing significantly over recent decades and its not surprising that the impact of tourism and hospitality on a fragile ecology is becoming a major concern (Grove, Fisk, Pickett & Kangun 1996, 56-66; Enz & Siguaw 1999, 72). The hotel industry needs to take some clear steps towards making its segment of the tourism industry more environmentally friendly (Watkins



1994, 70-72). The hotel industry consists of a large number of small operations consuming small amounts of energy and other resources for example water, paper and food, which when combined together indicate a substantial impact on natural resources (Kirk 1996, 3-8).

The environmental challenge in hospitality business is motivated by the notion of a global sustainable economy (Roarty 1997, 244-254). Although developed economies are trying for ecological recovery programmes, globally the planet is unable to sustain itself (Hart 1997, 67-76). In recent years, many hotels have had to respond to the global demand for a sustainable economy by initiating token measures, while others introduced comprehensive programmes to tackle a whole range of environmental issues (Watkins 1994, 70-72). Environmental developments start with pollution prevention, working through product stewardship and clean technology towards making a positive contribution to sustainability (Hart 1997, 67-76).

The hospitality and tourism industry has become environmentally friendly due to factors like consumer demand, increasing environmental regulation, managerial concern with ethics, customer satisfaction, maintenance issues related to the physical plant, need for esthetics (Foster et al. 2000, 187-203), increase in the influence of the green investor, the disproportionate influence on consumer behavior of environmental pressure groups (Roarty 1997, 244-254), the reduction in costs and saving resources to reduce future cost issues (Kirk 1997; Middleton & Hawkins 1998; Iwanowski & Rushmore 1994, 34-38).

Many hotels have generated customer interest by implementing environmental policies and practices (Feiertug 1994, 209). The hotel managers must understand the environmental improvement as an economic and competitive opportunity and not as an additional cost or threat (Porter & Van der Linde 1994, 120-134).

Globally hotels are increasingly recognizing the need for using energy and other resources responsibly and controlling consumption by adopting environmentally sensitive policies and practices. These activities can be seen as market strategies but nonetheless they also reflect industry concern (Tzschentke, et al. 2004, 116-124; Enz &

Siguaw 1999, 72; Gonzalez & Leon 2001, 177-190; Iwanowski & Rushmore 1994, 34-38).

## **2.5 Environmentally friendly hotel**

It is difficult to find a product that is hundred percent environmentally friendly (Manaktola & Jauhari 2007, 364-377). A product is defined as environmentally friendly if in some way it minimizes its negative impact on the environment (Hindle, White & Minion 1993, 36-48; Iwanowski & Rushmore 1994, 34-38). The idea of a green hotel and resort is at odds with the industry perspective that provides its consumers with opulence, luxury and grandeur. Thus there is a demand for standards and services to remain unchanged at the same time as demand for sensitivity to the environment among lodging operators (Iwanowsky & Rushmore 1994). The aim of an environmentally friendly hotel is to meet the consumer's expectation of eco friendliness and satisfy them so that the product is purchased (Manaktola & Jauhari 2007, 364-377).

A product may be defined environmentally friendly due to different aspects including recyclable, biodegradable, reusable, repairable or disposable and may also depend on the choice of raw materials, production of waste, how the product is used, and the amount of pollution it generate (Shrivastava 1995a, 183-200).

Moffitt & Engeldrum (1997), describe an environmentally friendly hotel as "the hotel that has made a commitment to conservation and preservation by operating in an environmentally sensitive manner". Most eco-friendly policies and practices are based on the scope of energy, waste management, water conservation and purchasing (Ayala 1995, 351-374; Iwanowski & Rushmore 1994; Moffitt & Engeldrum 1997). In addition some practices depend upon the direct co-operation of customers (Foster et al. 2000, 187-203). Most policies are based on the concept of the three R's: Reduce, Reuse and Recycle (Hart 1993, 18-21). The environmentally friendly hotel with these measures in place has less of a negative impact on the environment than a typical property.

Recently, there have been arguments from numerous consumer and environmental groups, to address the need for an increased supply of environmentally

friendly or green hotels (Claver-Cortes, Molina-Azorin, Pereira-Moliner & Lopez-Gomero 2007, 663-675). It has been found that, although more and more consumers consider environmental criteria in their purchasing decisions, their choices are limited, as the hotel industry has failed to capitalize on this potential market (Conner 2000, 16-17).

## **2.6 Factors affecting environmental responsibility**

Environmental responsibility plays a major role in an individual's decision to adopt environmentally friendly practices (Stone, Barnes & Montgomery 1995, 595-612; Laroche, Bergeron, Barbaro-Forleo 2001, 3-20).

Environmental responsibility is defined as "a state in which a person expresses as intention to take action directed toward remediation of environmental problems, acting not as an individual concerned with his / her own economic interests, but through a citizen consumer concept of societal environmental wellbeing". (Stone et al. 1995, 595-612).

Commitment of an individual towards environmentally friendly practices is an actual measure of an individual's behavior (Hines, Hungerford, Tomera 1986, 1-8). Environmentally friendly consumers try to protect the environment in different ways (Suchard & Polonski 1991, 187-201).

Several authors have suggested that, consumer's opinions and attitudes concerning the environment (Jackson 1985, 23-30; Thompson & Gasteigner 1985, 17-22.), knowledge and awareness (Chan 1999, 7-24; Schann & Holzer 1990, 276-786); Vining & Ebero 1991, 55-73), willingness to act (Hines, Hungerford, Tomera 1986, 1-8) and consumer behavior (Jackson 1985, 23-30) are the elements that must be present in an individual to be environmentally responsible.

## **2.7 Customer Satisfaction**

A product is anything that can be offered to satisfy a need or want which includes experiences, persons, places, organizations, information and ideas (Kotler, Bowen & James 2006). Customer's choice of product depends on a combination of

product attributes that best meets their needs based on dimensions of cost, value and prior satisfaction (Kotler 1997).

Many researchers have divided the service encounter into two elements, the core and the secondary (Davis & Stone 1985, 19-36; Lovelock 1985, 265-280; Czepl, Solomon, Suprenant & Gutman 1985, 3-15; Lewis 1995, 83-91). The core attributes involves functional performance and non essential attributes that support core attributes (Manaktola & Jauhari 2007, 364-377). The three characteristics of hotel product are intangibility, inseparability and variability (Kotler et al. 2006). Hospitality experience is a sum total of satisfactions with the individual elements or attributes of all the products and services that make up the experience (Pizam & Ellis 1999, 326-339).

One of the most important goals of any organization is retaining and satisfying current and past customers (Pizam & Ellis 1999, 326-339). If environmentally friendly products need to be considered or purchased by the customers then they have to perform satisfactorily compared to conventional products and achieve consumer satisfaction on key attributes such as functional performance, quality and price (Ottman 1995, 29; Schlegelmilch et al. 1996, 35-56; Wong, Turner & Stoneman 1996, 263-281.; Roy 1999). Customers purchase goods and services with prepurchase expectations about anticipated performance (Oliver 1980, 460-469).

Customer satisfaction or dissatisfaction is a judgment made after considering the qualities and benefits of the product as well as the price and efforts borne by the customer to obtain them (Ostrom & Lacobucci 1995, 17-28). Every customer does not have the same level of satisfaction out of the same hospitality experience since each customer has different needs, objectives and past experience (Pizam & Ellis 1999, 326-339).

Little previous research could be found regarding environmentally friendly practices by hotels and customer satisfaction. In most of the research on customer satisfaction in hotels, the criteria used to measure customer satisfaction were purpose of travel (Callan & Kyndt 2001, 313-323), age (Wei, Ruys & Muller 1999, 490-504),

gender (Mc Cleary, Weaver, Lan 1994, 51-58). cleanliness (Callan & Bowman 2000, 97-118), quality of staff and service (Knutson 1988; Lockyer 2002, 294-300).

Service quality is antecedent to customer satisfaction (Parasuraman, Berry & Zeithaml 1994, 111-125; Caruana 2002, 811-830). Perceived service quality is a result of individual service encounter between the service provider and the customer, during which the customer evaluates quality and develops satisfaction or dissatisfaction (Bitner et al. 1990, 71-84). The pre-purchase expectations formed by the customers are influenced by intrinsic and extrinsic cues related to a particular experience of previous experiences and other related information sources (Gould-Williams 1999, 97-118). It is difficult to reassure the customers regarding the functional performance of the environmentally friendly products due to the past failure of many of these products (Davis 1993; Ottman 1999, 21).

## **2.8 Customer value, price and purchase intentions**

### **2.8.1 Customer value**

Customer value is broadly defined by Zeithaml (1988) as "the customers overall assessment of the utility of a product based on perception of what is received and what is given". Perceived value is a direct consequence of perceived quality as well as of price based transaction and acquisition utilities (Jayanti & Ghosh 1996, 5-25; Zeithaml 1988). Perceived is a direct antecedent of a purchase decision (Zeithaml 1988).

Customer value is formed during the service experience or process due to the inseparable characteristic of the service product (Lemmink, Ruyter & Wetzels 1998, 159-177). The value model consists of three dimensions (Mattson 1991), extrinsic (where use of particular service can be used as a means to a specific end) (Halbrook 1994, 21-71), intrinsic (the emotional evaluation of a service) and systemic (relationship between what one wants and what one gets) (Hirschman & Halbrook 1994, 21-71).

### **2.8.2 Price**

Customer satisfaction is directly proportional to price, with higher levels of customer satisfaction increasing acceptance by the customer for higher prices (Anderson 1996, 265-274). If a customer is satisfied with a product then a slight increase in price will not affect their level of satisfaction (Kalwani & Yim 1992, 90-100). Sometimes the quality of service may be good but the net or marginal value may be rated poor if the price of the service is perceived to be too high, otherwise known as value-for-money approach. (Rust & Oliver 1994, 1-19). Perceived price has a significant positive effect on perceived value in the lodging industry (Bojanic 1996). Perceived price exerted a significant negative influence on perceived customer value (Oh 1999, 67-82.). Perceived prices are generally based on imperfect and incorrect information, especially in the early stage of an evaluation process (Erickson & Johansson 1985, 195-200).

Some hotels charge a surcharge for being environmentally friendly. This is due to initial set-up costs for new or alternative eco friendly production process and distribution; the cost of product recapture, remanufacture and reuse; or to recover the indirect costs of not achieving economies of scale (Wong et al. 1996, 263-281; Fuller 1999; Peattie 1999, 131-148).

### **2.8.3 Purchase intention**

Customer's environmental purchasing intentions and behavior is influenced by factors like individual's knowledge and motivation, the ability to perform and the opportunity to behave in an environmentally friendly way (Ajzen 1988; Pieters 1989; Olander & Thøgersen 1995, 345-385). The failure to reassure the customers on the eco friendly products functional performance is partly due to the previous failure of many environmentally friendly products (Davis 1993; Ottman 1999, 21). Traditionally green marketing was associated with exaggerated claims about its impacts instead of positive information related to the product (Manaktola & Jauhari 2007, 364-377).

## **2.9 Hypotheses**

Much has been written about rapid deterioration of the world's ecosystem. The customer's attitude towards environmentally friendly practices and its impact on their satisfaction level has been the background for the research. Due to many reasons the hotels started adopting environmentally friendly practices. Hence a study was conducted to explore if the practices adopted by the hotels will affect customer satisfaction.

Based on the literature review the following hypotheses are proposed:

- H1.           There is a positive relationship between customer attitude towards environmentally friendly practices and the willingness to opt for environmentally friendly hotel.
- H2.           There is a positive relationship between consumer attitudes towards environmentally friendly practices and the willingness to pay for the same.
- H3.           There is a positive relationship between knowledge about eco friendly practices and their willingness to pay for the same.

## **3 Research Methodology**

### **3.1 Introduction**

Research methodology is the overall plan for relating the conceptual research problem to relevant and accomplishable empirical research (Ghuri, Gronhaug & Kristianslud, 1995). This chapter will continue with research procedure, quantitative and qualitative research and data analysis.

### **3.2 Quantitative versus Qualitative studies**

Research methods can be classified in various ways (Neuman 2006). However, one of the most common dilemmas researchers often confront when developing any research plan is a choice between conducting quantitative or qualitative research or a combination of both (McColl, Callaghan, & Palmer 1998). The quantitative approach is objective and relies heavily on statistics and figures while the qualitative approach is subjective and utilises language and description (Kuhn 1970). Although both types of research can be used to investigate the same topic, each will address a different type of question (Neuman 2006).

As mentioned previously, quantitative research is often contrasted with qualitative research. However, it is not necessary that these two paradigms are seen as competing; in fact they could be seen as complementary strategies. Patton (1990) mentions "a paradigm of choices" to judge the methodological quality of any research by focusing primarily on the methodological appropriateness. Patton (1990, 39) also argues that "this notion allows for a situational responsiveness that strict adherence to one paradigm or another will not". In addition a number of researchers also agree that quantitative and qualitative can be effective when combined in the same research project (Strauss 1987; Streubert & Carpenter 1995). But although many contend that research can be enhanced considerably by a combination of both quantitative and qualitative approaches, few guidelines exist for accomplishing this goal (Knafl 1998).

For any research project the researcher must clear about which method of research will yield the information required. Therefore it is necessary for the researcher to ensure that most appropriate method is selected. This can be done by considering the relative advantages and disadvantages of both qualitative and quantitative methods.

### **3.3 Qualitative Research**

Qualitative research can be defined as "an enquiry process of understanding a social or human problem, based on building a complex holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting". (Creswell 1994). Traditionally, qualitative research rejects the idea that social



sciences can be studied with the same method as the natural or physical sciences (Hoeplf 1997, 1-17). Strauss and Corbin (1998, 17) define qualitative research as "any kind of research that produces results, not arrives at means by statistical procedures or other means of quantification". Zikmund (1996) suggests that when an investigation is meant to be exploratory in nature a qualitative investigation of the problem would be appropriate. McColl et al., (1998) support this notion stating that qualitative research is the exploration and interpretation of the perceptions and behavior of a small sample or target group. Since it employs an insider's perspective, qualitative research is often based on interpretive or critical social science (Neuman 2006). As such qualitative analysis results in a different type of knowledge than does quantitative enquiry.

The qualitative research for this project was done by conducting focus groups. "Focus group is a special qualitative research technique in which people are informally interviewed in a group discussion setting" Neuman (2006), There are many advantages to focus group interviews, for example people participating in the focus group are influenced by the comments of others and make decisions after listening to the advice and counsel of people around them, low cost, speedy results, allowing the moderator to probe, high face value (Morgan 1997). Focus groups combine the strengths of in-depth group interviewing and observation in a group context (Bouma 2000).

There were two focus groups for this research, one was with industry professionals and other was with the students studying bachelor's programme in Business Administration, at the Bond University. Focus groups generally consist of six to twelve people (Neuman, 2006). Each discussion was for twenty to thirty minute duration and consisted of six to seven members.

The focus group of industry professionals included a project manager, online marketing specialist, duty manager, receptionist, cleaner, guest services and guest representative. Focus group participants were aged twenty to fifty. The focus group of students studying bachelor of business in Bond University were aged 20 to 25 years old. The group included six participants in it.

Discussion was open ended, where the members were given equal chances to give their opinion on the different factors. This enabled the researcher to trap information that may have been missed in the literature review. The focus group discussions were recorded and later transcribed for analysis. The results of the analysis were used to prepare the questionnaire for survey.

One of the unique elements of focus group is that there is no pressure by the moderator to have the group reach consensus (Krueger & Casey 2000). The main attention is placed on understanding the thought process as they consider the issues of discussion.

In the context of this study, the qualitative stage of the research examines the interests industry related customers have in accepting environmentally friendly hotels, their reasons and willingness to accept environmental practices.

### **3.4 Quantitative research**

Quantitative research is defined as "an enquiry into a social or human problem, based testing a theory composed of variables, measured with numbers and analyzed with statistical procedures in order to determine whether the predictive generalizations of the theory hold true" (Creswell 2003). Quantitative research is distinguished from qualitative research in that it is objective in nature. Quantitative research is concerned with quantifying a relationship or comparing two or more groups (Strauss & Corbin 1998). Hopkins (1998) points out that the primary reason for conducting quantitative research is to explore and predict the number of people who have or share some characteristics and to generalize the findings to other persons in a population. Quantitative research establishes numerical measurement and reliable statistical predictability of results by utilizing numerical data analysis. Similarly, Tull & Hawkins (1990) note that quantitative research methods were originally developed in the natural sciences to study natural phenomena.

One of the most common quantitative methods is the survey. Survey research is defined as the systematic gathering of information from respondents for the

purpose of understanding and predicting some aspects of behavior of the population of interest (Alrect & Settle 1985). The broad area of survey method encompasses any measurement procedures that involve asking questions to respondents. Survey research is the most common method of gathering primary data for marketing decisions (Tull & Hawkins 1990). In addition Zikmund (1996) notes that surveys provide a quick, inexpensive, efficient and accurate means of gathering information about the population. However, there are some disadvantages of using surveys, for example respondent error and non-response bias.

The quantitative stage of this research will collect data to explore the customer attitude towards environmentally friendly practices by hotels. Survey research was deemed to be the most appropriate method to achieve this goal. O'Neil and Penrod (2001, 226-233) points out that surveys can provide data on attitudes, feeling, beliefs past and intended behaviors, evidence of association, knowledge, ownership personal demographic characteristics and other descriptive items.

Therefore a survey was conducted in order to check the level of environmental awareness and degree of environmental practices acceptable to the customers.

### **3.5 Ethical Consideration**

Denzin and Lincoln (1994) point out that researches are normally confronted with concerns about informed consent, right to privacy and protection from harm. Within this study a variety of ethical considerations were implemented to ensure that the subjects' rights are not transgressed.

Firstly, the covering letter briefly stated the aims of the research in order to give prospective participants an idea of the research project and the intention of the proposed questionnaire. The covering letter also stated an assurance of confidentiality and anonymity of the participants. Secondly, the researcher was identified by name, address and telephone number in the covering letter of the questionnaire. Therefore participants could contact them to discuss any query that might arise as a result of completing the questionnaire. Thirdly, the respective participants were advised that

no name and address, or other identifying information should be entered on the questionnaire. Finally all the information from the questionnaire after being entered to the computer, the paper will be destroyed.

### **3.6 Questionnaire Design**

The two key factors were kept in mind when the questionnaire was formed; they are avoiding confusion and viewing the questionnaire from the respondents' perspective. The language was chosen in such a way it implied the right meaning to the respondents. In all the emphasis of the questionnaire design was to impress on respondents that the questionnaire was easy to complete within a short time.

The questionnaire comprised of different sections. The data was collected based on the theory that a person's attitude, knowledge and behavior are factors that need to be considered for their attitude towards environmentally friendliness. Keeping the above in mind different environmentally friendly activities implemented by the Gold Coast, Surfers Paradise hotels, were grouped under them.

#### **3.6.1 Scaling**

Scales are used when a researcher wants to know how an individual feels or think about some thing. It used to measure the intensity, direction, level or potency of a variable (Neuman 2006). Scaling produces quantitative measures used to test hypothesis (Neuman 2006).

This questionnaire uses the Likert Scale. The Likert Scale needs a minimum of two categories, but as the two categories creates a crude measure it is better to go for five to nine categories (Neuman 2006). Another reason for using this particular scale was that it is easy to construct and administer and easily understood by respondents. The questionnaire employed the five point scale. The five responses were "strongly disagree", "disagree", "neutral", "agree", and "strongly agree".

### **3.6.2 Pilot study**

Pilot study is the pre-test of a questionnaire or other type of survey in order to test the procedures and quality of responses (Walliman 2006). Pilot study helps to improve the reliability of a measure (Neuman 2006). A pilot study was done to identify if there were any misleading or complex items included in the questionnaire. The pilot test was done randomly distributing the questionnaire to the bachelor students in the Bond University campus. It was found that on an average a participant took around six to eight minutes to complete the questionnaire.

### **3.6.3 Non-response Bias**

An issue that needs to be addressed relates to the issue of non-response bias, the existence of which limits the ability of the researcher to generalize findings from respondent sample to a population of interest. According to Chruchill (1996) this represents a failure to obtain information "late or at all" from some elements of the population selected and designated for the sample. There is evidence that the existence of such bias limits the generalization of findings from a sample (Rundall & Fernandes 1991, 10-11).

The questionnaire were distributed in and around major tourist destinations and from the vicinity of major hotels in Gold Coast, Australia. The respondents also included students from the Bond University. The questionnaires with a covering letter were handed out to the people randomly after getting their consent to fill them. One hundred and fifty six completed questionnaires were received for further analysis.

## **3.7 Data Analysis**

Data from returned questionnaires were analyzed using the Statistical Software Package for the Social Sciences (SPSS) version 14 for Windows operating system. The use of this software allowed the researcher to calculate the mean scores, standard deviation and other analysis. This software was the apt one for this research as it is mainly quantitative in nature.

The data collected was used for initial data screening. The data was subjected to detect any errors in data entry using the frequencies command in the SPSS software and also to check if there is any missing value by using Missing Value Analysis (MVA).

The main analyses being done are reliability analysis, principal component analysis and T-test.

### **3.7.1 Reliability Analysis**

Reliability is the degree to which the observed variable measures the true value and is error free (Hair, Black, Anderson, & Tatham 2006). Cronbach's alpha, which is the reliability factor, is calculated based on the average correlation of standardised items within a test (Coakes & Steed 2001). If the value of Cronbach's alpha is 0.7 or above means the level of reliability is acceptable (Hair et al. 2006).

### **3.7.2 Principal component analysis**

Principal analysis is a multivariate data reduction technique whose primary purpose is to identify linear functions or factors which explain the maximum amount of total variance in a correlation matrix (Dillon & Goldstein 1984). In other words it provides the tool for analysis the structure of the correlations among a large number of variables (Hair et al. 2006).

### **3.7.3 T-Test**

The T-test is used to assess the statistical significance of the difference between two sample means for a single dependent variable (Hair et al. 2006). The three main type of T-tests are on sample, independent and repeated measure (Coakes & Steed 2001). This research employs independent group T-test because participants from one condition are different from participants in another condition.

### **3.8 Summary**

The method employed within this study relied upon a combination of both quantitative and qualitative methods. A quantitative survey was deemed essential in order to explore customer attitude towards environmentally friendly practices by the hotels in Gold Coast, Surfers Paradise, Australia and its effects on customer satisfaction. The qualitative method was used to understand the perceptions about the same by the industry professionals. It is hoped that the combination of quantitative and qualitative methods will enhance the predictive validity of the research findings and would give insight that neither type of analysis could provide alone.

## **4 Data analysis**

### **4.1 Introduction**

This chapter reports the result of the analysis done on the data collected. First, characteristics of the sample collected will be reported followed by the reliability of the multi-item scale used in this study. Finally an investigation into the relationship between specific variables will be conducted. The hypotheses developed in chapter two will be tested. This continues with a description of the characteristics of the sample.

### **4.2 Characteristics of the sample**

The sample for this study was collected by distributing the questionnaire to the public and also to the students from Bond University, after getting their consent. One hundred and fifty six completed questionnaires were available for analysis and were subjected to thorough data screening procedures as described by Tabachnik and Fidell (2001). The frequencies command in SPSS was used to detect any errors in data entry, where out of range values may have been entered. The data was also subjected to a Missing Analysis (MVA). On completion of the data screening one hundred and fifty three usable questionnaires were retained for further analysis.

Out of the total one hundred and fifty three respondents, the female respondents (52.9%) were slightly more compared to males. The age distributions showed

that majority of the respondents (68.6%) are between twenty six and forty five. With respect to the level of education eighty seven respondents (56.86%) reported to have university / college degree. One hundred and thirty seven respondents (89.54%) are working with majority of them (62.75%) earning up to forty five thousands dollars annually. The profiles of the respondents are furnished in table 4.2.1.

Characteristics	Numbers	Percentage
<b>Gender</b>		
Male	72	47.1%
Female	81	52.9%
<b>Age Group</b>		
Below 45	126	82.35%
46 and above	27	17.65%
<b>Level of Education</b>		
Degree holders	87	56.86%
Non degree holders	66	43.14%
<b>Employment Status</b>		
Working	137	89.5%
Not working	16	10.5%
<b>Annual Income</b>		
Upt to \$45 000	96	62.75%
\$45 001 & above	57	37.25%

**Table 4.2.1: Profile of Respondents (N = 153)**



### 4.3 Reliability

The main objective of scale reliability is to check the internal consistency (Neuman 2006), which indicates if all items in the same scale are measuring the same underlying attributes. One of the most commonly used diagnostic measurement is Chronbach's alpha, which is the average correlation of items within a test if the items are standardised (Coakes & Steed 2001). The value of Chronbach's alpha varies in value between 0 and 1. An acceptable Cronbach's alpha value should be above 0.7 (Pallant 2005). The table 4.3.1 shows the Chronbach's alpha of this study.

Scale	Chronbach's alpha
Attitude of customers towards environmentally friendly practices by hotels	0.705
Customer's knowledge regarding environmentally friendly practices by hotels	0.747
Customer satisfaction towards environmentally friendly practices adopted by hotels	0.781
Customers perception about an environmentally friendly hotel	0.754

**Table 4.3.1: Chronbach's alpha of this research.**

The following sections report the results of these statistical analyses.

### 4.4 General attitude and behaviour

The first question was used to discover the general attitude of the respondents towards environmentally friendly practices. In response to the question "It is important to adopt environmentally friendly practices in my life" more than fifty percent (53.6%) of the respondents agreed with this, while above forty five percent (46.5%) disagreed or were neutral.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
No	1	3	67	78	4	3.53	0.62
%	0.7	2.0	43.8	51.0	2.6		

**Table 4.4.1: It is important to adopt environmentally friendly practices in my life.**

An independent samples T-test identified no effects ( $P>0.05$ ) of age, gender, education or income on attitude of an individual towards environmentally friendly practices in general.

In response to the next question on respondent behavior, "I have adopted many environmentally friendly practices at home", more than fifty percent (55.5%) agreed while nearly forty five percent (44.4%) disagreed or were neutral to this (Table 4.4.2)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
No	-	8	60	64	21	3.64	0.78
%	-	5.2	39.2	41.8	13.7		

**Table 4.4.2: I have adopted many environmentally friendly practices at home.**

An independent samples T-test identified no effects ( $P>0.05$ ) of age, gender, education or income on behavior of an individual towards environmentally friendly practices in general.

#### **4.5 Attitude towards environmentally friendly practices in hotel**

The most researched attitudes in the environmental literature are importance and inconvenience (McCarty & Shrum 1994, 53-62). Importance is the degree to which consumers view environmentally friendly behavior as important to themselves or society, whereas inconvenience relates to how inconvenient it is for the customer to

behave in an environmentally friendly manner (Amyx, DeJong, Lin, Chakraborty, Wiener 1994, 241-247). The variables in table 4.5.1 identified the attitude of the customers towards environmentally friendly practices adopted by the hotels. The respondents supported energy saving (65,5%); water saving and reusing (73,6%); reducing, reusing and recycling of stationary products (74,3%)

<b>Hotel practices</b>	<b>Strongly disagree</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Strongly agree</b>		<b>Mean</b>	<b>SD</b>
	no	%	no	%	no	%	no	%	no	%		
<b>Energy saving equipment</b>	1	0.7	4	2.6	48	31.4	84	54.9	16	10.5	3.72	0.71
<b>Recycling and reusing when possible</b>	-	-	3	2.0	44	28.8	73	47.7	33	21.6	3.89	0.76
<b>Water saving measures</b>	2	1.3	3	2.0	36	23.5	81	52.9	31	20.3	3.89	0.79
<b>Use of grey water for gardening</b>	1	0.7	4	2.6	28	18.3	80	52.3	40	26.1	4.0	0.78
<b>Use of recycled stationary</b>	1	0.7	4	2.6	29	19.0	74	48.4	45	29.4	4.03	0.80
<b>Purchase of products in bulk to reduce packing material waste</b>	-	-	4	2.6	33	21.6	75	49.0	41	26.8	4.0	0.77

**Table 4.5.1: I support following practices introduced by the hotel.**

Principal component analysis of the data resulted in the identification of two dimensions with Elgen values greater than one, explaining 66.2 percent of the va-

riance. Dimension one was named "Recycling" and dimension two was named "Energy saving and reusing". The Kaiser-Meyer-Olkin value is 0.62 exceeding the recommended value of 0.6 (Pallant 2005).

Results of the analysis are shown in the table no 4.5.2

Scale of statements	Dimension 1	Dimension 2
	<b>Recycling</b>	<b>Energy saving and reusing</b>
Use of recycled stationery	0.80	
Use of grey water for gardens	0.79	
Purchase of products in bulk to reduce		
Packing material waste	0.74	
Energy saving equipment		0.85
Recycling and reuse whenever possible		0.81

**Table 4.5.2: Results of the Principal component analysis on "I support practices introduced by the hotel".**

An independent samples T-test identified no effects ( $P > 0.05$ ) of age, gender or income on attitude of an individual towards environmentally friendly practices adopted by hotels where as education has a significant role ( $P < 0.05$ ).i.e higher the levels of education more positive are the individuals attitude towards environmentally friendly practices.

## 4.6 Knowledge

Research has shown that knowledge about environmental issues is a significant predictor of environmentally friendly behavior (Vining & Ebreo 1990, 55-73; Chan 1999, 7-24). The variables in table 4.6.1 were used to identify the customer's knowledge regarding environmentally friendly practices adopted by hotels. The table shows that the respondents agreeing to electricity saving measures (lights in hall ways dimmed after a certain time, air conditioning set to an ideal temperature to reduce its effects on the environment); water saving measures (water saving shower heads, auto-

cut off of water after a few minutes in shower); restriction on supply of linen and other amenities (changing of bed sheets every alternative day for long staying guests, restricted reissue of towels, restricted reissue of room amenities) and other practices (using dispensers instead of individual packing, separate bin for different types of waste, supply of cosmetics and other amenities made from natural ingredients) range between sixty eight to seventy five percent whilst the percentage of participants who are neutral to the above practices range from twenty five percent.

<b>Hotel practices</b>	<b>Strongly disagree</b>		<b>Disagree</b>		<b>Neutral</b>		<b>Agree</b>		<b>Strongly agree</b>		<b>Mean</b>	<b>SD</b>
	no	%	no	%	no	%	no	%	no	%		
<b>Lights in hall ways dimmed after a certain time</b>	-	-	4	2.6	37	24.2	78	51.0	34	22.2	3.93	0.75
<b>Air conditioning set to an ideal temprature to reduce its effects on the environment</b>	1	0.7	4	2.6	28	18.3	66	43.1	54	35.3	4.10	0.83
<b>Water saving shower heads</b>	-	-	8	5.2	30	19.6	67	43.8	48	31.4	4	0.85
<b>Auto-cut off of water after a few minutes in shower</b>	1	0.7	7	4.6	35	22.9	60	39.2	50	32.7	3.99	0.90
<b>Restricted reissue of towels</b>	-	-	7	4.6	38	24.8	57	37.3	51	33.3	3.99	0.88
<b>Use of dispensers instead of individual packing</b>	2	1.3	8	5.2	30	19.6	63	41.2	50	32.7	3.99	0.92
<b>Changing of bed sheets every alternative day for</b>	2	1.3	4	2.6	40	26.1	54	35.3	52	34.0	3.99	0.91

long staying guests												
Separate bins for different types of waste	3	2.0	9	5.9	36	23.5	61	39.9	44	28.8	3.88	0.96
Restricted reis- sue of room amenities	4	2.6	11	7.2	37	24.2	60	39.2	41	26.8	3.80	1
Supply of cosme- tics/other amenities made from natural ing- redients	4	2.6	7	4.6	33	21.6	65	42.5	44	28.8	3.9	0.96

**Table 4.6.1: Do you think the hotel should adopt the following practices?**

Principal component analysis of the data resulted in the identification of three dimensions with an Eigen value exceeding one, explaining 65 percent of the variance. Dimension one was named "Personal amenities"; dimension two as "Waste management" and dimension three as "Energy and water saving". The Kaiser-Meyer-Olkin value is 0.71 exceeding the recommended value of 0.6 (Pallant, 2005). Results of analysis are shown in the table no 4.6.2

Scale of statements	Dimension 1	Dimension 2	Dimension 3
	Personal amenities	Waste Management	Energy & water saving
Restricted reissue of room amenities	0.87		
Supply of cosmetics/amenities from natural ingredients	0.83		
Restriction of reissue of towels	0.81		
Separate bins for different types of waste		0.75	
Use of dispensers		0.70	

instead of individual packing			
Air conditioning set to an ideal temperature to reduce its effects on the environment			0.81
Lights in hall ways dimmed after a certain time			0.80
Auto-cut off of water after a few minutes in shower			0.68
Water saving shower heads			0.64

**Table 4.6.2: Results of the Principal component analysis of "Do you think the hotel should adopt the following practices?"**

An independent samples T-test identified that level of education ( $P < 0.05$ ), of an individual has an impact on the level of knowledge regarding environmentally friendly practices. An individual's gender, age or income has no significance ( $P > 0.05$ ) with regard to knowledge. i.e. an individual's gender, age or income has no positive relationship to knowledge.

#### **4.7 Customer satisfaction**

The effects of customer satisfaction on environmental practices are reported in table 4.7.1. It was identified that sixty to sixty five percent of the respondents indicated that the environmentally friendly practices adopted by the hotel, would affect their satisfaction level. While thirty two to thirty nine percent was neutral or disagreed, indicating that it did not affect their level of satisfaction.

Principal component analysis of the data resulted in the identification of three dimensions with an Eigen value exceeding one, explaining 65.7 percent of the variance. Dimension one was named "Personal amenities"; dimension two was named

”Waste management” and dimension three was named ”Energy and water saving”.

The Kaiser-Meyer-Olkin value is 0.70 exceeding the recommended value of 0.6 (Pallant 2005).

An independent samples T-test discovered indetified level of education of an individual, has significance for their level of satisfaction ( $P < 0.05$ ). This means that higher levels of education of an individual results in higher levels of satisfaction. Other factors like age, gender and income level has no significance to an individual’s level of satisfaction ( $P > 0.05$ ) with respect to environmental friendly practices adopted by hotels.

Hotel practices	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	SD
	no	%	no	%	no	%	no	%	no	%		
Lights in hall ways dimmed after a certain time	6	3.9	10	6.5	36	23.5	62	40.8	38	25	3.76	1.0
Air conditioning set to an ideal temprature to reduce its effects on the environment	4	2.6	11	7.2	41	26.8	58	37.9	39	25.5	3.76	1.0
Water saving shower heads	1	0.7	8	5.2	35	22.9	72	47.1	37	24.2	3.89	0.85
Auto-cut off of water after a few minutes in shower	-	-	20	13.1	35	22.9	61	39.9	37	24.2	3.75	0.97
Restricted reissue of towels	2	1.3	12	7.8	47	30.7	64	41.8	28	18.3	3.68	0.91
Use of dispensers instead of individual packing	3	2.0	14	9.2	41	26.8	53	34.6	42	27.5	3.76	1.0



Changing of bed sheets every alternative day for long staying guests	2	1.3	18	11.8	38	24.8	50	32.7	45	29.4	3.77	1.0
Separate bins for different types of waste	3	2.0	14	9.2	36	23.5	61	39.9	39	25.5	3.78	0.99
Restricted reissue of room amenities	3	2.0	12	7.8	44	28.8	65	42.5	29	19.0	3.69	0.94
Supply of cosmetics/other amenities made from natural ingredients	3	2.0	13	8.5	38	24.8	54	35.3	45	29.4	3.82	1.0

**Table 4.6.1: Will the following affect my level of satisfaction with the hotel experience?**

Results of analysis are shown in the table 4.7.2.

Scale of statements	Dimension 1	Dimension 2	Dimension 3
	Personal amenities	Waste Management	Energy & water saving
Restricted reissue of room amenities	0.83		
Supply of cosmetics/amenities from natural ingredients	0.83		
Restriction of reissue of towels	0.75		
Separate bins for different types of waste	0.84		
Changing of bed sheets for every alternative day	0.67		

Air conditioning set to an ideal temperature to reduce its effects on the environment			0.84
Lights in hall ways dimmed after a certain time			0.89
Auto-cut off of water after a few minutes in shower		0.88	
Water saving shower heads		0.61	

**Table 4.7.2: Results of the Principal component analysis of ” Will the following affect my level of satisfaction with the hotel experience?”**

#### **4.8 Customer’s perception about environmentally friendly hotel**

Twelve items were used to explore the customer’s understanding of an environmentally friendly practices by the hotel, to the customers, nearly seventy percent agreed while twenty percent were neutral to it. Above seventy percent of the participants supported measures for saving electricity and water, while twenty one percent were neutral about this. Purchasing and use of environmentally friendly products in the hotel were supported by nearly seventy four percent while nearly twenty percent were neutral to this too. Having well trained employees for environmentally friendly practices were supported by seventy three percent and twenty one percent were neutral to this. Hence to summarise, around seventy to seventy five percent of the participants said that if a hotel claims to be environmentally friendly then they should adopt those practices mentioned in the table 4.8.1.

Hotel practices	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	SD
	no %	no %	no %	no %	no %		
Have visible communications	1 0.7	5 3.3	36 23.5	80 52.3	31 20.3	3.68	0.79

about green poli- cies adopted by the hotel.												
Have an active recycling prog- ramms in the hotel	1	0.7	4	2.6	34	22.2	84	54.9	30	19.6	3.90	0.76
Provide envi- ronmentally friendly products	2	1.3	3	2.0	21	13.7	86	56.2	41	26.8	4.05	0.78
Use eco- responsible clea- ners through out the hotel	1	0.7	3	2.0	31	20.3	85	55.6	33	21.6	3.95	0.75
Use sen- sors/timers to save electricity	-	-	8	5.2	30	19.6	82	53.6	33	21.6	3.92	0.79
Train employees for eco-friendly practices	-	-	9	5.9	32	20.9	73	47.7	39	25.5	3.93	0.84
Have energy saving light bulbs	1	0.7	11	7.2	30	19.6	80	52.3	31	20.3	3.84	0.85
Encourage pur- chase of hotel supplies from eco friendly suppliers	2	1.3	13	8.5	46	30.1	63	41.2	29	19.0	3.68	0.92
A system for pre- ventive maintan- ce of equipments to reduce envi- ronmental im- pacts (wastage of water, electricity)	4	2.6	10	6.5	39	25.5	66	43.1	34	22.2	3.76	0.96
Display of certifi- cates showing authorisation of their eco-friendly	5	3.3	8	5.2	35	22.9	62	40.5	43	28.1	3.85	1.0

practices												
Control on reissue and use of linen	-	-	10	6.5	38	24.8	79	51.6	26	17.0	3.79	0.80
Using the in-room TV to inform guests on hotels environmental policies	1	0.7	7	4.6	44	28.8	68	44.4	33	21.6	3.82	0.85

**Table 4.8.1: Should hotels adopt the following practices?**

Principal component analysis of the data resulted in the identification of three dimensions with an Elgen value exceeding one, explaining 60.2 percent of the variance. Dimension one was named "Training and communication"; dimension two was named "Recycling and reuse of products" and dimnasion three was named "Energy saving measures". The Kaiser-Meyer-Olkin value is 0.67 exceeding the recommended value of 0.6 (Pallant 2005). Results of analysis are shown in the table 4.8.2.

<b>Scale of statements</b>	<b>Dimesnion 1</b>	<b>Dimension 2</b>	<b>Dimension 3</b>
	<b>Training &amp; communication</b>	<b>Recycling &amp; reuse of products</b>	<b>Energy &amp; saving measures</b>
<b>Train employees for eco friendly practices</b>	0.83		
<b>Have visible communications about green practices adopted by hotel</b>	0.81		
<b>Displaying certificates showing authorization of their eco-friendly practices</b>	0.78		
<b>Use in-room TVto inform guests</b>	0.64		
<b>Have control on reissue and use of linen</b>		0.81	
<b>Have an active recy-</b>		0.74	

cling programme in the hotel			
Provide eco-friendly products (organic)		0.70	
Have a system for preventive maintenance			0.73
Have energy saving light bulbs			0.71
Use sensors/timers to save electricity			0.69

**Table 4.7.2: Results of the Principal component analysis of ” Should hotels adopt the following practices?”**

An independent samples T-test indicates that there is a positive relationship between education and an individual’s perception about eco-friendly practices by hotels ( $P < 0.05$ ). Whereas age, gender or income has no positive relationship towards an individual’s perception regarding environmentally friendly practices by hotels ( $P > 0.05$ ).

#### **4.9 Willingness to support**

Of the one hundred and fifty three respondents one hundred and thirty three respondents (86.9%) indicated that they are willing to support eco-friendly practices irrespective of their purpose of travel, while one hundred and four (68%) indicated that they will opt for a environmentally friendly room if given a choice, provided the costs are the same. One hundred and eighteen (77.1%) respondents indicated that they are not willing to pay a surcharge for eco-friendly practices. Of the respondents (22.9%) who are willing to pay for environmentally friendly practices indicated that majority of them will pay less \$20 (62.86%). Table 4.9.

The independent samples T-test conducted on the factors like ”opting for environmentally friendly room and non environmentally friendly room for the same price” and ”willingness to pay surcharge for eco-friendly practices”, discovered that an individuals decision on any of the above has no significance ( $P > 0.05$ ) on age, gender, education or income level.

Characteristics	Numbers	Percentage	Mean	Standard deviation
<b>Option for room at same cost (N=153)</b>				
Eco- friendly	104	68%		
Non eco-friendly	49	32%		
			1.32	0.47
<b>Willingness to pay surcharge (N=153)</b>				
Yes	35	22.9%		
No	118	77.1%		
			1.77	0.42
<b>Amount willing to pay (N=35)</b>				
Less than \$20	22	62.86%		
more than \$20	13	24.29%		
			1.74	0.66

**Table 4.9: Willingness to support**

#### **4.10 Pearson correlation (n=153)**

Pearson correlation analysis indicates that the correlations are significant at 0.01 level for the following:

- Knowledge about environmentally friendly practices and attitude ( $r=0.26$ ,  $p<0.01$ ).
- Option between environmentally and non-environmentally friendly hotel and attitude ( $r=0.386$ ,  $p<0.01$ ).
- Perception about environmentally friendly hotel and customer satisfaction ( $r=0.223$ ,  $p<0.01$ ).
- Knowledge about environmentally friendly practices and customer satisfaction ( $r=0.230$ ,  $p<0.01$ ).

## 4.11 Hypotheses testing

This section investigates the hypothesis of this research. Pearson correlation is the main technique used to analyse the data. The following are the results of the analysis

H1. There is positive relationship between customer attitude towards environmentally friendly practices and the willingness to opt for environmentally friendly hotel.

The correlation between a composite variable for environmentally friendly hotel practices and attitude is 0.386. The correlation is significant at 0.01 level ( $r=0.386$ ,  $n=153$ ,  $P<0.01$ ). Hence the hypothesis is supported.

H2. There is a positive relationship between customer attitude to environmentally friendly practices and willingness to pay for the same.

The correlation between a composite variable for environmentally friendly hotel practices and willingness to pay for the same is -0.012. The correlation is not significant at 0.01 level ( $r= -0.012$ ,  $n= 153$ ,  $P>0.01$ ). Hence the hypothesis is not supported.

H3. There is positive relationship between knowledge about environmentally friendly practices and their willingness to pay for the same.

The correlation between a composite variable for knowledge about environmentally friendly hotel practices and willingness to pay for the same is -0.018. The correlation is not significant at 0.01 level ( $r= -0.018$ ,  $n= 153$ ,  $P>0.01$ ). Hence the hypothesis is not supported.

## 5 Discussion and Conclusion

### 5.1 Introduction

This chapter discusses the results presented in chapter four. The findings of the study will be placed in relation to previously published research. This chapter also

discusses the limitation of the study and directions for the future research. The next section focuses on the discussions about the results of hypothesis formed in chapter two.

## **5.2 Hypotheses**

The discussion of the hypotheses testing is summarised in the following sections. Each of the three hypotheses is discussed individually.

H1. There is positive relationship between customer attitude towards environmentally friendly practices and the willingness to opt for environmentally friendly hotel.

Customer satisfaction in this research is related to the attitude of the customers towards the environmentally friendly practices adopted by hotels. Research shows that customer satisfaction is an antecedent to repeat purchase decisions. The survey had questions exploring the respondent's level of satisfaction if they stayed in a hotel that practiced environmentally friendly activities. The survey also explored the attitude of the respondents towards environmentally friendly practices and also the intention of the respondent to opt for an eco-friendly room and non environmentally friendly room.

The hypotheses formed on these measurements supported that there is a positive relationship between customer's attitude and opting for environmentally friendly hotel. This indicates that customer attitude is important in the decision regarding support for environmentally friendly activities.

H2. There is a positive relationship between customer attitude to environmentally friendly practices and willingness to pay for the same.

The second hypotheses was on customer attitude towards environmentally friendly practices and their intention to pay. The attitude of the customers regarding eco-friendliness was measured by using different eco-friendly practices adopted by hotels globally. Research shows that customer attitude towards environmentally friendly



practices plays an important role in their decision towards environmentally friendly practices (Jackson 1985, 23-30; Thompson & Gasteigner 1985, 17-22.). The data collected indicates that there is only a small group who are willing to pay for environmentally friendly practices. The analysis indicates that there is no positive relationship between people's attitude towards environmentally friendly practices and intention to pay for such practices. Hence study doesn't support the hypotheses. This study does not support the previous findings by Jackson (1985, 23-30); Thompson & Gastegner (1985, 17-22.).

H3. There is positive relationship between knowledge about environmentally friendly practices and their willingness to pay for the same.

Previous research has shown that knowledge is one of the characters that determine an individual's behavior towards environmentally friendly practices (Arcury 1990, 300-304). Empirical support on the influence of knowledge on the attitude of a person towards environmentally friendly practices is contradictory. For example research by Maloney and Ward (1973, 583-586) indicates no significant influence of knowledge on eco friendly practices, research by Vining and Ebreo (1990, 55-73) and Chan (1999, 7-24) concludes otherwise. Previous research by Amyx et al., (1994, 241-247) found that people with more environmental knowledge are willing to pay more for environmentally friendly practices. The hypotheses for this study was that people with more knowledge are willing to pay more for environmentally friendly practices. No positive relation between knowledge about environmentally friendly practices and the willingness to pay for the same in the hotel industry was identified. The hypotheses was not supported, thereby supporting the finding of Manaktola and Jauhari (2007, 364-377).

### **5.3 Conclusion**

This research aimed at exploring the attitude of customers towards environmentally friendly practices by hotels and its effect on customer satisfaction. The research found that gender and level of income has no significance on an individual's decision to accept environmentally friendly activities. The respondents indicated that

any eco-friendly activities by the hotel that affected them personally would lead to dissatisfaction. For example the respondents are willing to support factors like energy saving or water saving measures, but they are not willing to support factors like restricted reissue of linen and other room amenities. The research also shows that positive attitude towards environmentally friendly activities does not result in willingness to pay for the same. Hence it may be concluded that customers have a positive attitude towards environmentally friendly practices by the hotel, but are not willing to support these activities by paying extra money. Also any environmentally friendly activity that affected them personally would affect their level of satisfaction with the hotel experience.

#### **5.4 Limitations**

This section identifies the limitations of the study. Firstly cross sectional research is not sensitive to social processes and change and the respondents may not be willing to provide adequate information in a preformatted questionnaire. Further, recent researches suggest that customers tend to be more negative in their approach towards surveys related to customer satisfaction in order to demonstrate their carrying attitude and responsible thinking in the responses (Ofir & Simonson, 1999). This could affect genuine relationship between variables.

The respondents for the survey were restricted mainly to students and also general public from Gold Coast, Australia rather than being more specifically from the hotel clients. This might restrict the genuineness of the answers from the respondents. Another limitation of this research was that there was no question regarding recent visit of the respondents to an environmentally friendly hotel. Hence the researcher assumes that the respondents had to recall their previous experience with environmentally friendly hotel. A poor memory could bias results (Steers 1977, 46-56). It could also be possible that the respondents never had any experience with an environmentally friendly hotel.

Yet another limitation was the demographics of the respondents. The age group was not elaborate.

Finally the sample size is another limitation. Even though the minimum sample size was met, associations between variables in the population may not be detected by this sample size. Hence the results of the study should be interpreted with caution.

## **5.5 Directions for future research**

This section describes the directions for future research. Firstly different methodologies could be used to confirm the findings of this study. Secondly future researches if conducted at different locations and also with more sample size could lead to different explanation of the customer satisfaction in relation to environmentally friendly practices by the hotel. The adoption of environmentally friendly practices by hotels has implications for customers and management. This research mainly concentrated on the customer side, and opportunity lies in conducting research on the management side, of the implementation of environmentally friendly practices by hotels. Finally the main issue can be the utilisation of these researches to tap this particular growing market segment. Hence it is necessary to conduct more research in this area.

Further research in these areas will be useful in developing marketing strategies to attract eco-friendly customers, who are increasing daily.

## **5.6 Evaluation and reflection of the learning and experiences**

The first ideas towards the thesis were made approximately a year ago, however the actual work on the research started five months ago, in December 2011. Changes in the researcher's working, living and also travelling conditions have dramatically affected the effectiveness of work on the thesis.

Overall, the experience the researcher got from the work on the thesis was very educational. The most interesting part of the thesis was empirical research as both qualitative and quantitative researches were used. The topic of the study "Analyzing the impact on consumer satisfaction, behavior and attitudes by using eco-friendly practices and products in Surfers Paradise/Gold Coast city hotels, Australia" was intriguing and

up to date, as the researcher has been living in a few of the Gold Coast city hotels since July 2010. The researcher has also been questioned, whether there is any difference for customers to stay in eco-friendly hotel and the impact on their level of satisfaction.

At first, only quantitative research was selected to be used in the thesis. However, it soon appeared to be more effective to use both quantitative & qualitative methods in the research. The researcher found the qualitative method could help to create a better survey, with more efficient results.

Whilst doing the thesis, the researcher recieved a lot of support from the family and friends. Undertaking this project was extremely difficult without phsyically having meetings with the thesis supervisor. Writing the thesis from overseas is a big challenge, especially whilst trying to adopt to the new culture, establish your own business and move from one apartment to another as it was required at the same time while the researcher was trying to create this study. In conslusion, the researcher is more then happy to finish the thesis and is proud to achieve settled goals for the study.

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# Appendix

## Attachment 1. Covering letter

**HAAGA-HELIA University of Applied Sciences**

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### **How do customers value improved environmental practices in hotels?**

The project aims to find out the impact on satisfaction levels of hotels adopting environmentally friendly practices. What are the purchase intentions of the customers with regard to the same concept? A range of environmental options (e.g. reuse of towels, energy saving lights etc) will be provided to the respondents and they will be asked the likely impact on satisfaction.

This survey is anonymous. You do not need to write your name or any other information that can identify you on the survey. After the data contained in the survey responses has been entered onto the computer the paper copy of the questionnaires will be destroyed. This research is being undertaken by me as part of my studies towards the degree of The Bachelor of Business Administration (BBA).

To participate in this survey you must be aged eighteen years or above. Your participation in this survey is voluntary and by proceeding onto the main survey you are indicating your consent to participate in this research. If you are willing to participate please continue into the main part of the questionnaire.

Thank you.

Maria Chikita

Student (The Bachelor of Business Administration)

HAAGA-HELIA University of Applied Sciences

## Attachment 2. Questionnaire

The survey is intended to measure your attitude to environmental practices in hotels. It is expected the survey will lead to improved environmental practices in the hotel industry.

Thank you for your support in completing this survey. Please circle the most appropriate response.

**1. I think it is important to adopt environmentally friendly practices in my life.**

Strongly disagree      Disagree      Neutral      Agree      Strongly agree

**2. I have adopted many environmentally friendly practices at home.**

Strongly disagree      Disagree      Neutral      Agree      Strongly agree

**3. I support the following practices being introduced by hotels.**

Hotel practices	Strongly agree	Disagree	Neutral	Agree	Strongly agree
Energy saving equipment	1	2	3	4	5
Recycling & reusage whenever possible	1	2	3	4	5
Water saving measures	1	2	3	4	5
Use of grey water for gardens	1	2	3	4	5
Purchase of products in bulk to reduce packing material waste	1	2	3	4	5

**4. Do you think the hotel should adopt the following practices?**

	Strongly agree	Disagree	Neutral	Agree	Strongly agree
Lights in hallways dimmed after certain time	1	2	3	4	5
Air conditioning set to an ideal temperature to reduce its effects on the environment	1	2	3	4	5
Water saving shower heads	1	2	3	4	5
Auto cut off of water after a few minutes in the shower	1	2	3	4	5
Restricted re-issue of towels	1	2	3	4	5
Use of dispensers for room amenities instead of individual packing	1	2	3	4	5
Changing of bed sheets every alternative day for long staying guests	1	2	3	4	5
Separate bins for different types of waste	1	2	3	4	5
Restricted re-issue of room amenities	1	2	3	4	5
Supply of cosmetics/amenities made from natural ingredients	1	2	3	4	5

**5. The following will affect my level of satisfaction with the hotel experience.**

Hotel practices	Strongly agree	Disagree	Neutral	Agree	Strongly agree
Lights in hallways dimmed after certain time	1	2	3	4	5
Air conditioning set to an ideal temperature to reduce its effects on the environment	1	2	3	4	5
Water saving shower heads	1	2	3	4	5
Auto cut off of water after a few minutes in the shower	1	2	3	4	5
Restricted re-issue of towels	1	2	3	4	5
Use of dispensers for room amenities instead of individual packing	1	2	3	4	5
Changing of bed sheets every alternative day for long staying guests	1	2	3	4	5
Separate bins for different types of waste	1	2	3	4	5
Restricted re-issue of room amenities	1	2	3	4	5
Supply of cosmetics/amenities made from natural ingredients	1	2	3	4	5

**6. I will be most willing to support environmentally friendly practices when staying for**

Business Travel

Leisure Travel

Both

**7. Should hotels adopt the following practices?**

Hotel practices	Strongly agree	Disagree	Neutral	Agree	Strongly agree
Have visible communications about green policies adopted by the hotel	1	2	3	4	5
Have an active recycling program in the hotel	1	2	3	4	5
Provide eco-friendly products in the hotel	1	2	3	4	5
Use environmentally responsible cleaners throughout the hotel	1	2	3	4	5
Use sensors/timers to save electricity	1	2	3	4	5
Train employees for eco-friendly practices	1	2	3	4	5
Have energy saving light bulbs	1	2	3	4	5
Encourage purchase of hotel supplies from eco-friendly suppliers	1	2	3	4	5
A system for preventive maintenance of equipments to reduce environmental impacts	1	2	3	4	5
Display of certificates, showing authorisation of their eco-friendly practices	1	2	3	4	5

Display of certificates, showing authorisation of their eco-friendliness	1	2	3	4	5
Control on re-issue and use of linen	1	2	3	4	5
Using the in-room TV to inform guests on hotel environmental policies	1	2	3	4	5

**8. Would you be willing to pay a surcharge for a hotel room that is environmentally friendly?**

Yes

No

**9. If yes, how much would extra you be willing to pay**

\$20 or more

\$10-20

Less than \$20

**10. On check in, if you were given an option to choose between an eco-friendly room (use of recycled paper, restriction on water usage, restriction on supply of amenities, air conditioning set to a fixed temperature etc...) and a non eco-friendly room (all regular supplies) in the same hotel at the same price, which one would you go for?**

Eco-friendly room

Standard room

**11. In which of the following categories of hotel would you normally choose to stay?**

3 star

4 star

5 star

**12. Are you**

Male

Female



**13. To which age group do you belong?**

18-25      26-45      46-65      66 and above

**14. What is your highest level of completed education?**

High School      Certificate/Diploma      Trade qualification

University/College      Post graduate      Other, please specify  
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**15. What is your employment status?**

Working      Not working      Self-employed      Retired

**16. Please indicate your annual income**

Less than \$25 000      \$25 001-\$35 000      \$35 001-\$45 000

\$45 001-\$55 000      \$55 001-\$75 000      \$75 001-\$150 000

Greater than \$150 000

Thank you for your support in completing this survey.